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EXAMINER

FAN, CHIEH M

ART UNIT

PAPER NUMBER

2634

DATE MAILED: 07/15/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/052,673

Applicant(s)

ANDERSON, RICHARD E.

Examiner

Chieh M Fan

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-10 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-10 and 13-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 05 September 2000 is: a) ☒ approved b) ☐ disapproved by the Examiner
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-5, 7-10 and 13-15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Regarding claim 1, claim 1 recites "... determining the difference between the local and program clock frequencies, then adjusting the frequency at which the local clock oscillates so that the difference approaches zero." However, according to Figure 7 of the instant application, the adjusting step is performed only when there is difference between the values stored in the "PCR register 701" and "latched STC register 704". The specification of the instant application never teaches determining the difference between the local and program clock frequencies before the step of adjusting. The applicant may argue that determining the difference between the values of PCR and STC is equivalent to determining the difference between the local and program clock frequencies. The applicant is referred to the blocks "calculate difference in clock rate

(frequency)” and “calculate difference in PCR and STC value” in Figure 9 of the instant application. It appears that “the difference in PCR and STC value” and “the difference in clock frequency” are not the same in the instant application.

Regarding claim 2, the applicant is requested to indicate which portion of the specification has support on the following claimed limitations:

(a) “maintaining a program clock value based on the program clock signals received at the decoder”. In particular, which portion of the specification teaches that the decoder receives the program clock signals?

(b) the hardware also performs each step recited.

Regarding claim 3, the applicant is requested to indicate which portion of the specification has support on the following claimed limitations:

(a) “determining the difference between the local and program clock frequencies, then adjusting the frequency at which the local clock oscillates so that said difference approaches zero”. In particular, which portion of the specification teaches the step of determining the difference between the local and program clock frequencies before the step of adjusting?

(b) “maintaining a program clock value based on the program clock signals received at the decoder”. In particular, which portion of the specification teaches that the decoder receives the program clock signals?

(c) the hardware performs the steps recited in lines 4-16 of claim 3.

Regarding claim 7, the applicant is requested to indicate which portion of the specification has support on the following claimed limitations:

(a) “means for receiving clock signal transmitted to the decoder at a program clock frequency”. In particular, which portion of the specification teaches that the decoder receives the clock signals at a program clock frequency?

(b) the hardware performs each means recited in lines 3-15.

Regarding claim 13, the applicant is requested to indicate which portion of the specification has support on the following claimed limitations:

(a) “means for determining if there is a difference between the local clock and the program clock frequencies, and means for adjusting the frequency at which the local clock oscillates, when there is a difference ...”. In particular, which portion of the specification teaches the means for determining the difference between the local and program clock frequencies before the means for adjusting?

Response to Arguments

3. Applicant's arguments/explanations filed 4/29/03 have been fully considered but they are not persuasive.

(a). With respect to the examiner's question about claim 1, the applicant indicates that the difference in frequency is (program clock frequency – local clock frequency), wherein

$(\text{STC} - \text{previous STC}) / (\text{time elapsed}) = \text{local clock frequency}$

$(\text{PCR} - \text{previous PCR}) / (\text{time elapsed}) = \text{program clock frequency}$

time elapsed = (PCR - previous PCR) * 90KHz. (see page 8 of the amendment)

The applicant further argues that the difference between the local and program clock frequencies are determined by the difference between STC and PCR values (see page 9).

Examiner's response --- The applicant's explanation makes no sense to the examiner. According to mathematical expressions provided by the applicant, the program clock frequency will be:

$$(PCR - \text{previous PCR}) / ((PCR - \text{previous PCR}) * 90KHz),$$

which is equal to 1/(90KHz).

First of all, the applicant is reminded that 1/KHZ is not a frequency unit. Secondly, the difference in frequency (program clock frequency – local clock frequency) is then equal to:

$$1/(90KHz) - (STC - \text{previous STC}) / ((PCR - \text{previous PCR}) * 90KHz),$$

which is clearly not the difference between STC and PCR values.

(b). With respect to the examiner's question about claim 1, the applicant further argues that the step "calculate difference in clock rate (frequency)" on the left hand side of Fig. 9 uses previous stored STC and PCR values and step "calculate difference in PCR and STC values" on the right hand side of Fig. 9 uses recently received STC and PCR values. In both steps, however, the difference between the local and program clock frequencies are determined by determining the difference between

STC and PCR values; and, moreover, both of these steps are done prior to adjusting the frequency at which the local clock oscillates. (see page 9 of the amendment)

Examiner's response --- The applicant's response makes the examiner very confused. According to the applicant, the step "calculating difference in clock rate (frequency)" is really calculating the difference of previous stored STC and PCR values. If that is the case, the step of the left should be marked as "calculate the difference of previous stored STC and PCR values". Further, the applicant seems to argue that the teaching of "calculating the difference between STC and PCR values" is equivalent to the teaching of "determining the difference between the local and program clock frequencies" (which does not appear to be correct according to item (a) above). The applicant is reminded that claim 3 (and similarly claim 7) of the instant application recites two different steps "determining the difference between the local and program clock frequencies" and "determining if there is an absolute difference between the local clock value and the program clock value". If these two steps are really equivalent, how can they be claimed separately? Lastly, the applicant is reminded Fig. 9 is directed to the software routine only. On the other hand, claim 1 recites using both hardware and software. Where is the teaching for the hardware part?

(c). With respect to claim 2, the applicant argues that the specification teach receiving the PCR data and the original claim recites the step "receiving clock time stamps at the decoder which specify the programs clock value and frequency". The specification therefore has support on "the decoder receives the program clock signals".

Examiner's response --- The applicant is reminded that the examiner's question is which portion of specification teaches that the decoder receives the program clock signals. The examiner's question is not which portion of the specification teaches that the decoder receives the data specify the programs clock value and frequency. Receiving the data that specify the program clock value and frequency is not equivalent to receiving the actual program clock signals.

(d). With respect to claim 2, the applicant indicates the word "absolute" is used to distinguish the difference between the difference between the PCR time stamp and the system time clock and the frequency difference between the local and program clock frequencies.

Examiner's response --- It is clear "the difference between the PCR and STC" and "the difference between the local and program clock frequencies" are different. The examiner does not think it is necessary to add an extra word to distinguish them. The term "absolute difference" is generally referred to the absolute value of the difference.

Conclusion

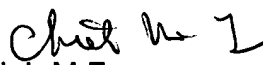
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chieh M Fan whose telephone number is (703) 305-0198. The examiner can normally be reached on Monday-Friday 8:00AM-5:30PM, Alternate Fridays off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (703) 305-4714. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.


Chieh M Fan
Examiner
Art Unit 2634

cmf
July 12, 2003